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ABSTRACT

Male and female adults revise their perceptions of control three times in their lives, between the ages of 20 and 65. To investigate the relationship between experienced control in terms of loci of control (internal, external), situations (opposite sex, same sex), and direction (from or over the environment), and the developmental stages of men and women, 2,126 subjects (890 males, 1,233 females) aged 11-99, completed the Tiffany Experienced Control Scales (ECS). Subjects were grouped into seven age ranges of approximately 10 year intervals. An analysis of the results showed that across the lifespan, males experienced greater control than females both from and over events at the internal and external loci, except at age 40. Males were also more volatile than females. Females were more consistent and, with the exception of the 35-44 age group, typically fell below males in their control ratios, particularly in their loss of control over the environment. Females experienced their best years within 2 to 3 years of the time males experienced their worst years. Both men and women felt more control over relations with members of the opposite sex than members of the same sex. (Numerous charts and statistical tables are included). (BL)

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Sex and Experienced Control Throughout Adulthood: A Non-Linear Model

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Sex and Experienced Control Throughout Adulthood:

A Non-linear Model

In a recent paper Tiffany (1982) reported that males and females reverse their perceptions of control in their life approximately three times between ages 20 and 65. Not only do both groups reverse the direction of control causing us to look at development from a non-linear perspective but the direction of change is oppositional for the two groups.

Several issues need further study. First, the experience is non-linear for both males and females. This suggests crises are situation specific and should be looked at in a broader context than previously assumed. What is the relationship between males and females during a period of crises? Should they be studied as totally independent or as related phenomena?

Experienced Control Theory (Tiffany, 1962; Tiffany, 1966; Tiffany, Shontz, & Woll, 1979) has profiled perception of control for populations of alcoholics (O'Leary, Donovan, and O'Leary, 1976), work inhibited, (Tiffany, Cowan, & Tiffany, 1970), as well as various other psychiatric and non-psychiatric populations (Evans, R. G., 1981), but never before has a developmental span been undertaken to look at the vicisitudes of Experienced Control over time.

Experienced Control Theory is phenomenological and deals with the amount of control the individual feels s/he has in a variety of situations.

Four kinds of control are delineated in the theory: (1) Control from internal forces (CFI), (2) Control over internal forces (COI), (3) Control from external forces (CFE), (4) Control over external forces (COE). Two loci of control--Internal and External, with forces over and from results from these four components.

Balance may occur at either the Internal or External loci, separately or at the same time but complete balance need not be maintained to insure psychological soundness. Balance is relative to the situation. Each loci includes impersonal, non-self directed forces and willful, self directed forces. It does not relate theoretically or empirically to Rotter's (1965) I-E expectancy model (Tiffany, et al., 1970; Tiffany & Markley, 1975).

This study was an empirical effort to relate Experienced Control (EC) and developmental periods for both men and women.

Method

Design. The independent variables were: (1) comparisons of age, (2) loci and kind of control, (3) situations, and (4) direction of control. The dependent variables were the ratio scores (COI/CFI and COE/CFE) and the raw scores.

Situations. Situations are HOME, WORK, SCHOOL, OPPOSITE SEX, SAME SEX, OTHER PEOPLE, COMMUNITY, and GENERAL. For this study, only situations OPPOSITE SEX and SAME SEX have been analyzed. One study (Tiffany, 1982) has demonstrated that male subjects think in terms of "girl friend (spouse)" and "mother" for situation OPPOSITE SEX and "friend (roommate)" and male family members for situation SAME SEX. Female subjects think in terms of "boyfriend (spouse)",

"friend", "father" for OPPOSITE SEX and "friend (roommate)", and female family members for situations SAME SEX.

Direction of control. In compliance with the four components of the theory, four basic types of questions are used. Those having to do with experiencing control from internal forces (CFI), over internal forces (COI), over external forces (COE) and from external forces (CFE).

Subjects. A total of 2126 subjects were drawn from a non-psychiatric population. Subjects ranged from age 11 to 99, (see Table 1 for subject characteristics). Subjects were grouped into seven age groups, 11 to 14, 15 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 plus. The discussion of results in this paper is limited to adulthood, ages 15 through 64. Group means are shown at ages 20, 30, 40, 50 and 60 (see graphs 1 through 4).

The subject groups are arbitrary to avoid the cumbersomeness of illustrating 41 individual mean scores for the components. The group data include the individual scores and make the necessary point regarding directionality of control.

Table 1

Number of Subjects Per Group by Age and Sex

	Age							
	11-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Male	166	370	177	71	50	30	26	890
Female	192	623	116	103	60	47	34	1233
Total	356	993	353	174	110	77	60	2123*

*Three subjects included in total N were dropped from their individual age groups because of inadequate age or sex information.

Questionnaire. Dependent measures were obtained from the Tiffany EC Scales (Tiffany & Tiffany, 1970). Each of 32 items are presented on a 100 millimeter scale on which the subject is asked to estimate the magnitude of the control s/he feels. The scale beginning with "LOW" and "0" at the left extreme and extending to "HIGH" and "100" at the right extreme, is also marked at intervals of 10. The center point is labeled "about average". The subject is asked to "put a mark anywhere on the scale near the number that you think best tells how much control you feel."

Scoring. The component scores were determined from the location of the subject's mark on each item scale. The component scores were then used to obtain ratios for the internal (OI/FI) loci and for the external OE/FE) loci. Ratios are always converted to common logs to correct for asymmetry in distribution.

The Reversal Effect

Results

Analysis. Component and loci means were computed for each individual age mean score. An additional analysis, computation of 5th degree polynomials, using each individual score was carried out to determine the line of best fit, for all groups from ages 11 to 99. F's for male and female subjects combined on all components were significant (OPPOSITE SEX, internal; $F = 5.46633$; $p = < .001$, external, $F = 4.52704$; $p = < .001$, SAME SEX, internal, $F = 10.16975$; $p = < .001$; external, $F = 11.27852$; $p = < .001$.), demonstrating the nonlinear perceptions of control across adulthood (see Table 2).

Fig. 1.

Experienced Control Across Ages: Situation OPPOSITE SEX

Internal Loci, Male (•——•) and Female (•----•) Comparisons

N = 1707

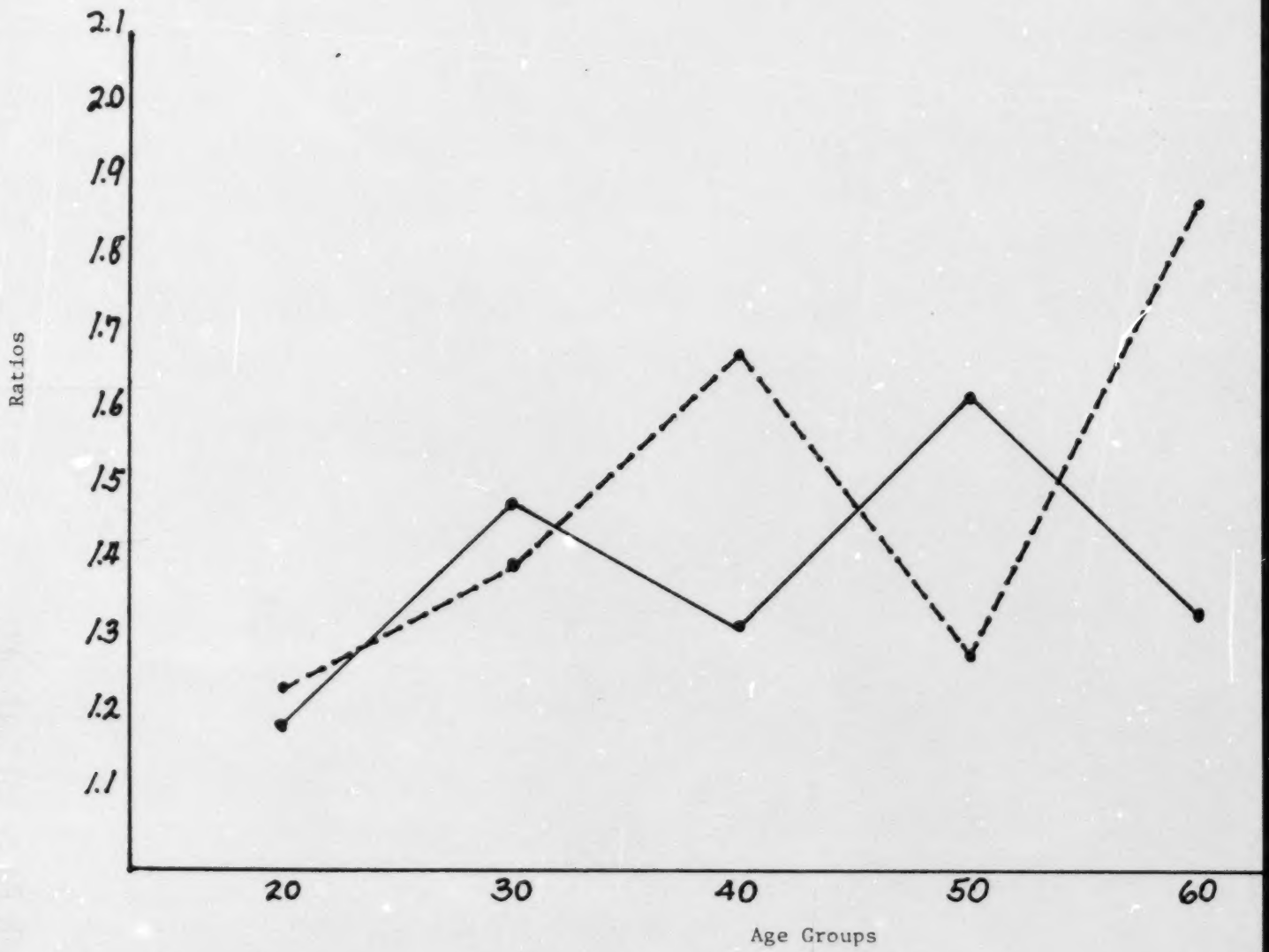


Fig. 2.

Experienced Control Across Ages: Situation OPPOSITE SEX

External Loci, Male (o——o) and Female (o- - -o) Comparisons

N = 1707

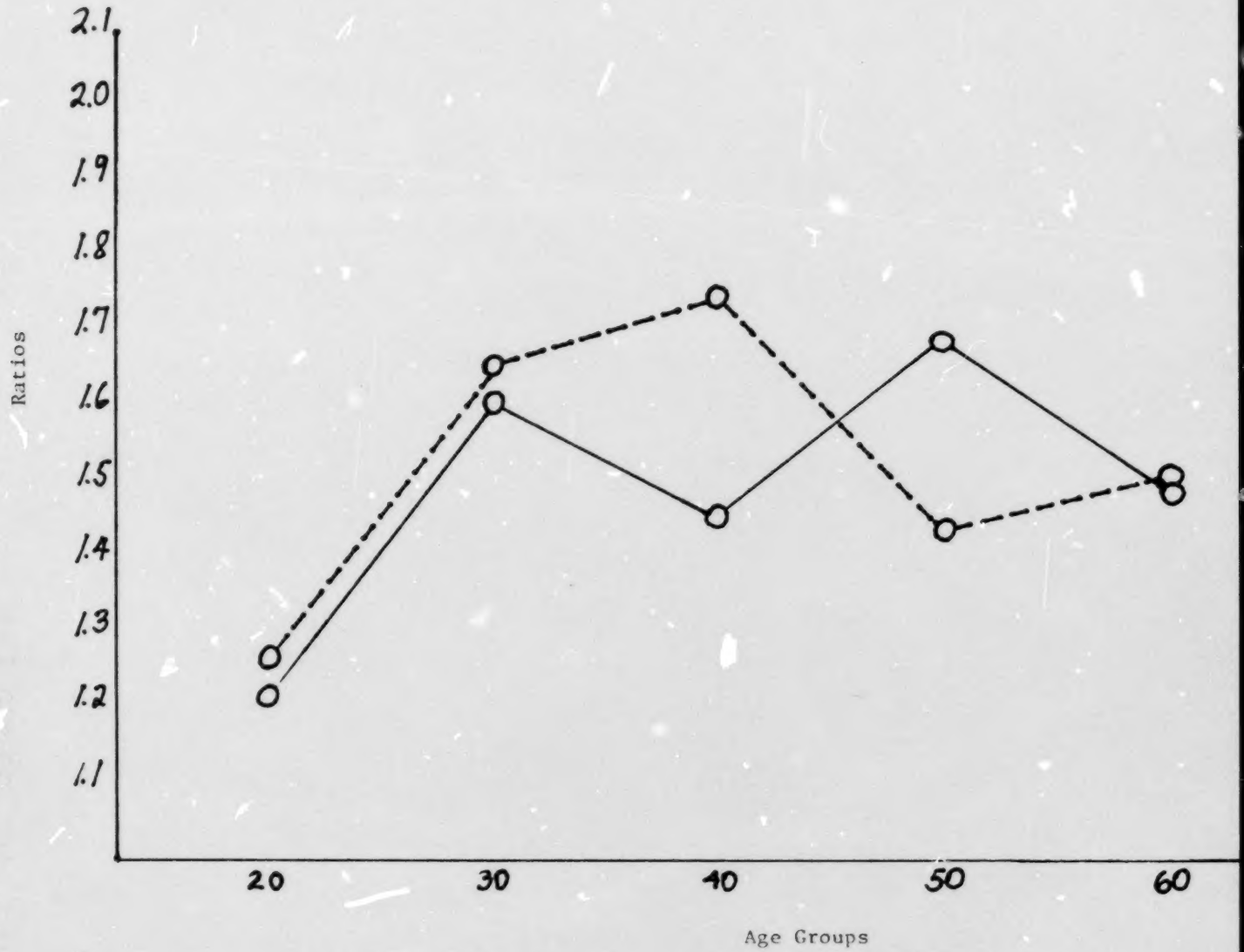


Fig. 3. Experienced Control Across Ages: Situation SAME SEX

Internal Loci, Male (• —— •) and Female (• --- •) Comparisons

N = 1707

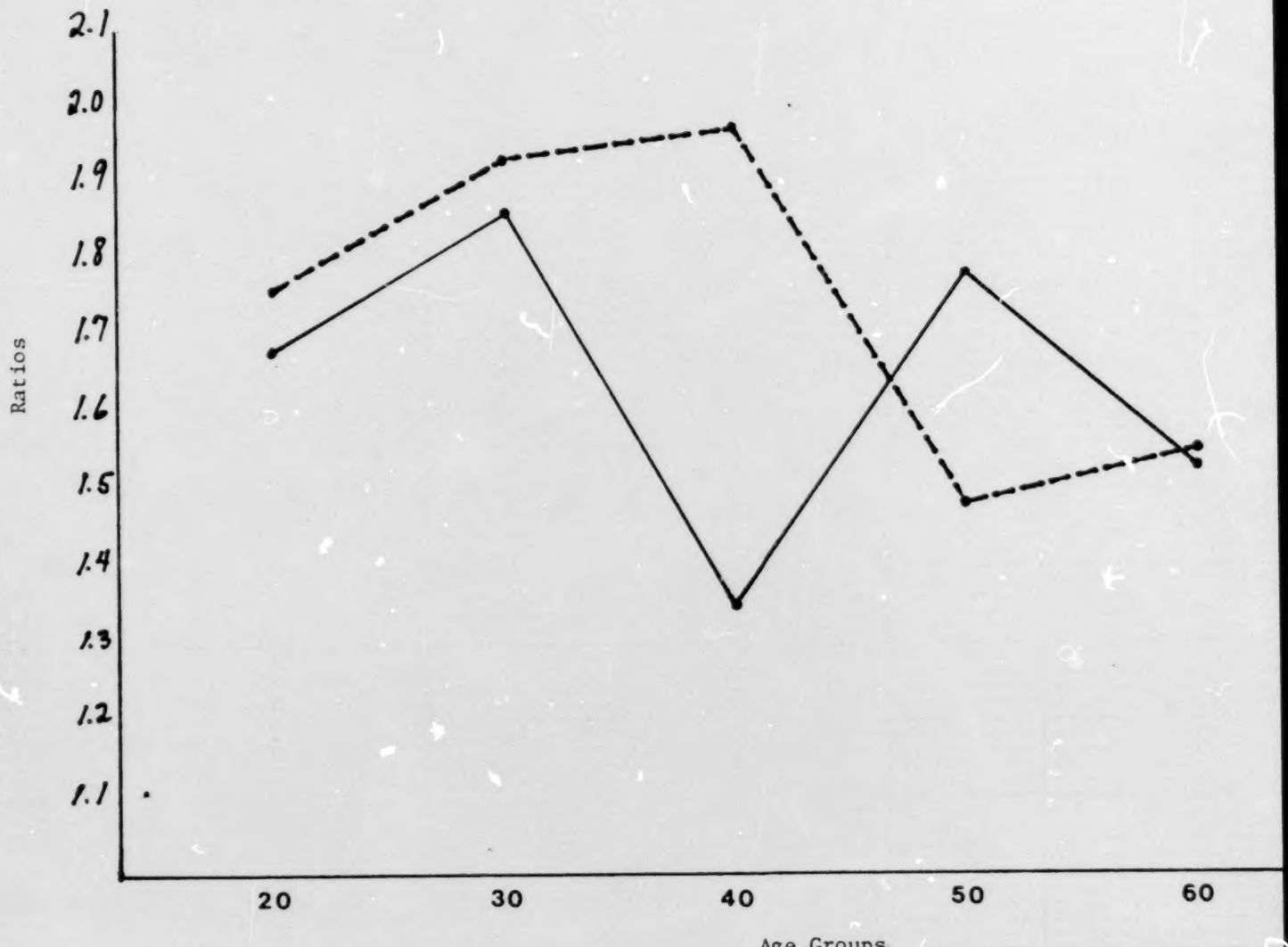
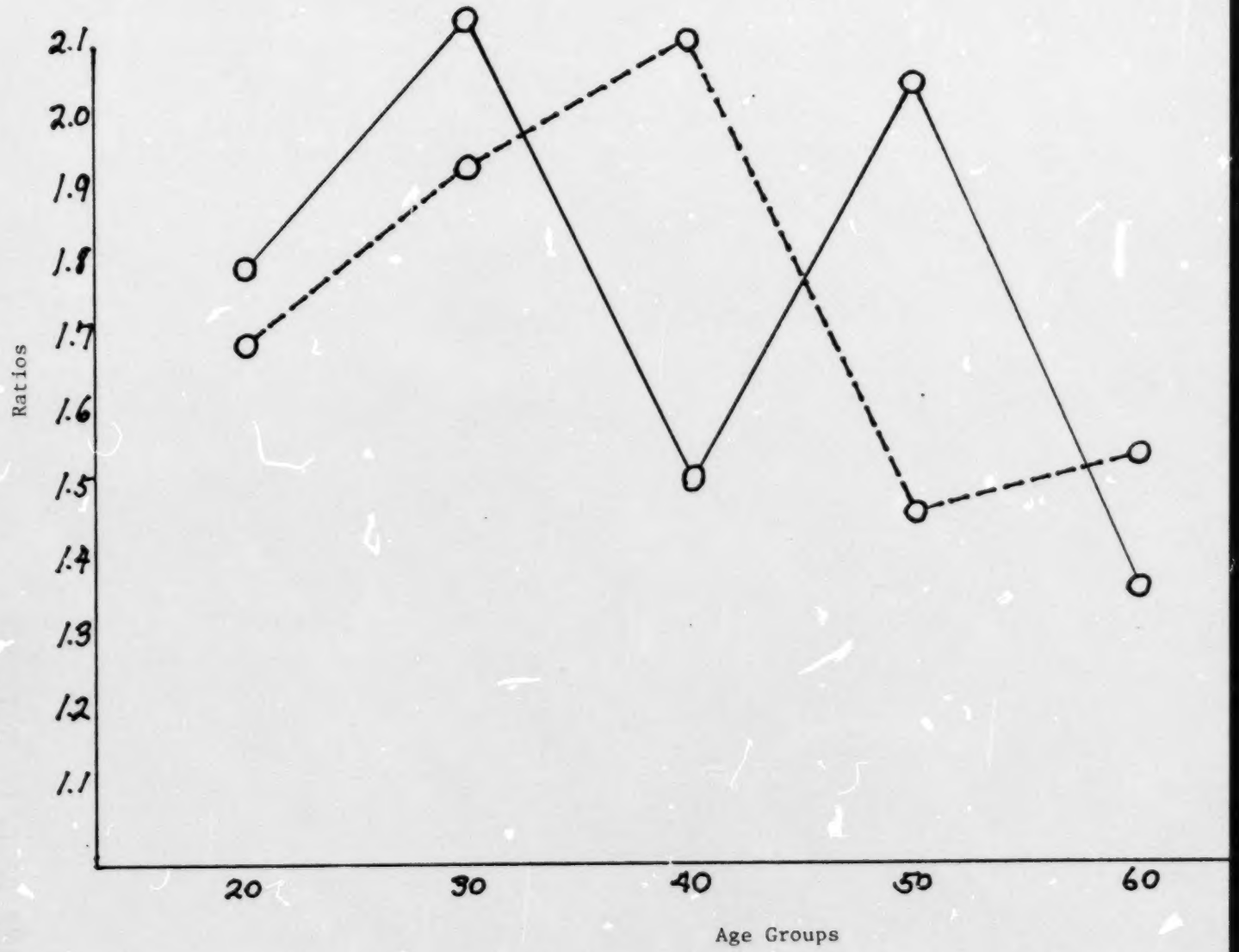


Fig. 4. Experienced Control Across Ages: Situation SAME SEX

External Loci, Male (o——o) and Female (o---o) Comparisons

N = 1707



The theoretical balance for the Internal and for the External loci for the entire male sample (n=890) and the entire female sample (n=1233) combined is 1.38, illustrating more control over than from. The female means, across ages, for both ratios are higher (internal locus = 1.40, external locus = 1.52) than males (internal locus = 1.32, external locus = 1.35). Differences between males and females are significant for age groups 35-44 and 45-54, at three loci but not at other ages, (OPPOSITE SEX, internal, age 35-44, t = 1.9; p = < .05, age 45-54, t = 1.41; p = < .10, SAME SEX internal, age 35-44, t = 2.68; p = < .01, external, age 35-44, t = 2.54; p = < .01, age 45-54, t = 1.76; p = < .05) see Table 3.

Table 2

F's for Significant 5th Degree Polynomials

	Internal	External
OPPOSITE SEX	5.46633*	4.52704*
SAME SEX	10.16975*	11.27852*

*significant p .001

Table 3

Student t's for Significant Male-Female Ratio Scores by Age

	Internal		External	
Ages	35-44 (40)	45-54 (50)	35-44 (40)	45-54 (50)
OPPOSITE SEX	1.90**	1.41***	1.24	.781
SAME SEX	2.68*	1.0	2.54*	1.76**

Significant *.001
**.05
***.10

Internal vs. External Loci. Males experience less control at age 35 than at any other age, according to their scores on situation SAME SEX. An inspection of Table 4 and 5 reveals that the overall mean ratio for males at the internal locus is 1.44 and at the external locus, 1.56. A further inspection of Table 4 and 5 show that ratios drop from age 30, to age 40 (internal locus 1.56 to 1.29; external locus 1.82 to 1.47). They then increase to age 50 (internal locus 1.40; external locus 1.63). The internal locus continues to rise to age 60 (internal locus 1.53). However, the external locus drops to 1.34.

Females (see Tables 4 & 5) from age 20 to 30 gain in control (internal, 1.52 to 1.67; external 1.56 to 1.73) and continue to gain at the external locus (1.67) but drop down at age 40 at the internal locus (1.58). Females continue to decline (Internal, 1.28 at age 50 and 1.25 at age 60 and External 1.55 at age 50 and to 1.41 at age 60).

The situation OPPOSITE SEX yield data that are exceptional. Twenty year old males show less elevated control scores than at any other time in their life, (internal 1.12, external 1.14). Beyond this age however, the same pattern emerges with the lowest experience of control being at age 40, (internal 1.17, external 1.32). What is particularly dramatic is the clear oppositional tendency of females. From age 30 on females gain in control when males lose in their perception of control and the reverse. Figures 1 and 2 show these reversals. Once again the lack of linearity of Experienced Control across ages is clearly demonstrated.

Table 4

Mean Component Scores and Ratios by Age and Sex:
OPPOSITE SEX

Age Groups

MALES

	11-14	15-24	25-34	35-44	45-54	55-64	65+	
N=	166	373	176	71	50	30	26	890
FI	46.74	57.20	49.89	52.26	54.28	41.14	50.32	
OI	59.60	64.47	67.58	65.40	76.07	68.57	49.47	
Internal Ratio	1.43	1.19	1.48	1.32	1.62	1.34	.98	
OE	58.30	60.02	62.84	60.23	67.72	58.29	51.26	
FE	45.92	51.04	43.53	43.92	46.41	35.86	54.21	
External Ratio	1.37	1.22	1.61	1.46	1.69	1.49	1.11	

FEMALES

N=	192	625	180	103	60	47	35	1236
FI	50.01	56.91	50.90	49.06	56.06	42.28	57.70	
OI	64.36	65.75	53.91	60.76	62.44	62.64	53.44	
Internal Ratio	1.51	1.24	1.40	1.68	1.28	1.86	1.01	
OE	59.60	60.64	59.07	65.12	58.91	60.48	47.93	
FE	44.45	51.21	42.40	43.93	47.59	36.36	43.15	
External Ratio	1.44	1.27	1.66	1.75	1.44	1.51	1.39	

Table 5

Mean Component Scores and Ratios by Age and Sex:
SAME SEX

Age Groups

MALES

	11-14	15-24	25-34	35-44	45-54	55-65	65+	
N =	166	373	176	71	50	30	26	890
FI	44.80	48.84	45.32	48.47	51.97	44.71	61.25	
OI	63.39	71.14	70.16	62.55	72.79	68.71	47.11	
Internal Ratio	1.69	1.68	1.86	1.35	1.78	1.53	.83	
OE	60.54	67.21	68.99	63.36	69.83	55.43	42.42	
FE	46.53	43.38	38.18	42.79	43.14	41.14	48.00	
External Ratio	1.41	1.80	2.14	1.52	2.05	1.37	1.02	

FEMALES

N =	192	625	180	103	60	47	35	1236
FI	47.94	45.75	41.82	42.65	49.56	48.16	55.85	
OI	67.69	70.40	70.05	67.78	63.85	59.80	56.26	
Internal Ratio	1.63	1.76	1.93	1.97	1.48	1.55	1.07	
OE	63.17	66.51	63.70	67.35	64.71	62.32	49.44	
FE	44.55	43.37	36.74	34.39	41.68	43.64	47.27	
External Ratio	1.49	1.70	1.94	2.11	1.47	1.55	1.46	

Analysis of component scores. In order to understand the change in the ratio, it is necessary to determine where over and from scores change; (see Tables 4 & 5). Scores for the situations SAME SEX at the external locus show males experiencing the least amount of control from at ages 30 (38.18) than at other age groups. At the same time, control over increases slightly at ages 30 (68.99) resulting in a higher ratio (1.82) of control. Control over decreases slightly at ages 40 (63.36) resulting in a lower ratio of the components over/from and increases again at ages 50 (69.83). Control from raises at ages 40 (42.79). (see Figures 1 and 2).

The low External ratios of over/from for 40 year olds result from males both increasing in their experience of control from and their decreasing experience of control over resulting in a lower ratio (1.47). Females, on the other hand maintain their External control over during the 40 year period. Their control from remains the same resulting in a ratio (1.86) that is higher than for males ages 40 (1.47).

Conclusion

Across the life-span, males experience greater control than females both from and over events at the Internal and the External loci. The major exception is at age 40. At the same time males are more volatile than females. Females are more consistent and with the exception of the age group 35-44 typically fall below males in their control ratios. The age group 35-44 reflects the period of time when men start to recognize that they have lost the physical edge they had enjoyed while women find themselves more free to attend to their own interests, goals and well being.

The loss of control over is the primary factor in the lowering of ratios. Studies with psychiatric populations (Zeiker, 1975) have shown a similar loss of control over as compared to an increase in control from. Older children lighten the confinement and strict schedules of child rearing while sons demonstrate to fathers they are now beginning to compete with them and daughters demonstrate that they find the pimply faced kid next door more attractive and interesting than Dad ever was.

It is also obvious from these findings that females may indeed experience a mid-life crisis, but if so, they have that experience at a different time in their life than do males. If the average male in our society is losing in his perception of control at age 25-34 experiencing his worst years, his wife on average 2-3 years younger, is experiencing her best years.

Based on these data, it is important to view the mid-life crisis not only from the standpoint of the male role and social expectations, but in contrast to the female experience at the same age and the kinds and types of changes that both males and females undergo throughout adulthood.

It appears that after the impact of that awareness men regain and surpass their former perceptions of their own control over themselves, their SAME SEX peers and members of the OPPOSITE SEX until retirement. They do lose control at the External *Locus* with their SAME SEX peers suggesting they are better satisfied with themselves but still feel competition from other males.

The age groups 44-54 catches most women during the pre-menopausal and menopausal years when they are forced to recognize changes in energy, feeling good physically, and most persistently the obvious changes is reflected

in their mirrored appearance.

Like men, women seem to fa'r better in their perceptions of control with members of the OPPOSITE SEX than with members of the SAME SEX. Tiffany (1980) found that college subjects most frequently responded to "spouse" "boy/girl" friend when responding to items OPPOSITE SEX. Such a study with older subjects is necessary before we can conclude that members o. the OPPOSITE SEX (such as spouse) in late adulthood are more supportive than members of the SAME SEX.

While ages have been assessed across a wide developmental span these data are cross-sectional and limited to a specific population sample. In order to make generalizations it would be effective to reassess those subjects from age 30 to 60, increase the total number of subjects at the older ages and better substaniate individual perceptions of the situations OPPOSITE SEX and SAME SEX. The beginnings of research projects to answer these criticisms are underway but as yet incomplete. In addition differences between rural, urban, subject's race, education, marital stat.s, and religion, decade differences between college students, can be analyzed.

The lack of a linear model demonstrates the need to assess the individual from a "here and now" perspective. While certain age trends appear, the circumstances o. each individual determines the where, how, and the how much crises s/.e will experience.

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